

REMARKS

Favorable reconsideration and allowance of the present application in view of the foregoing amendments and the following remarks are respectfully requested.

Currently, claims 1, 3, 9 and 23-26 remain pending in the present application, including independent claim 1. Claim 1 is directed to an article comprising a thermoplastic polymer composition. The thermoplastic polymer composition comprises a liquid crystalline polymer and a mixture of carbon fibers and glass fibers. As now amended, claim 1 requires that the article comprise ovenware and that the carbon fibers have a thermal conductivity of about 50 watt/m²K or more. In accordance with the present disclosure, a mixture of carbon fibers and glass fibers are contained in the polymer composition such that the composition has a through plane thermal conductivity of 3.0 watt/m²K or more.

In the Office Action, claims 1, 3 and 9 were rejected solely under 35 U.S.C. §102 in view of U.S. Patent No. 5,486,683 to Shimizu. Shimizu, however, fails to disclose or suggest many of the features required by claim 1.

Shimizu is directed to a dresser for electromagnetic cookers. A “dresser” is the top plate or cover plate of an electromagnetic cooker. Dressers on electromagnetic cookers are designed to hold cookers such as pots and pans.

In Shimizu, the dresser is made from a liquid crystalline polyester and a filler. The filler is combined with the polymer in order to improve moldability and strength.

In stark contrast to claim 1, however, Shimizu does not disclose or suggest an article comprising ovenware. Instead, Shimizu is solely limited to the design of a dresser for electromagnetic cookers.

In addition, Shimizu does not disclose or suggest combining a liquid crystalline polymer with a mixture of carbon fibers and glass fibers. Further, Shimizu does not disclose or suggest using carbon fibers having a thermal conductivity of greater than about 50 watt/m²K. Although Shimizu does mention that one possible filler is carbon fiber or graphite, Shimizu is silent as to the thermal conductivity of the material. As recognized by one skilled in the art, the thermal conductivity of carbon fibers and graphite can vary widely depending upon how the material is made. Thus, not only

does Shimizu fail to disclose carbon fibers having a thermal conductivity of greater than 50 watt/m°K but it is also not inherent from the reference.

Further, Shimizu does not disclose or suggest adding a mixture of carbon fibers having a thermal conductivity of about 50 watt/m°K or more and glass fibers with a liquid crystal polymer in amounts sufficient for the resulting composition to have a through plane thermal conductivity of 3.0 watt/m°K or more.

As described in the present specification, liquid crystal polymers have relatively low thermal conductivities. Shimizu is not in any way directed to increasing the thermal conductivity of a liquid crystalline polymer. Instead, the fillers are combined with the polymer for purposes of moldability and strength. In fact, since the thermal conductivity of the resulting material is not a concern in Shimizu, Shimizu fails to in any way recognize that a carbon fiber with a relatively high thermal conductivity (of about 50 watt/m°K or more) is in any way a result effective parameter for increasing the thermal conductivity of the resulting material. In the present case, there is simply no teaching in Shimizu or any explanation based on scientific reasoning that would support an inherency objection that compositions made according to Shimizu would have the necessary through plane thermal conductivity as required in claim 1.

In view of the above, Applicant submits that the currently pending claims are not anticipated by Shimizu. Applicant further submits that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Should any issues remain after consideration of this amendment, however, then Examiner Becker is invited and encouraged to telephone the undersigned at his convenience in the hopes of expediting prosecution.

Respectfully submitted,

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